

REMARKS

Claims 1-7, 10, 14, 16-18, 32-35, and 55-67 are pending. Claims 1-5, 7, 10, 14, 16-18, and 32-34 were withdrawn from consideration. Claims 6, 35, and 55-67 were rejected under 35 U.S.C. § 112, first paragraph. Applicants address this rejection as follows.

Claim amendments

Withdrawn claims 1-5, 7, 10, 14, 16-18, and 32-34 have been canceled. In addition, claims 65-67 have been canceled. Applicants note, for the record, that these amendments were simply made to expedite prosecution and Applicants reserve the right to pursue the canceled subject matter in a continuing application.

Rejection under 35 § U.S.C. 112, first paragraph

Claims 6, 35, and 55-67 were rejected under 35 § U.S.C. 112, first paragraph, as containing subject matter that is not described in the specification in such a way as to enable one skilled in the art to which it pertains to make and use the invention. In particular, the Office states (page 3):

The Examiner does not dispute the confirmation of the amino acid sequence encoded by a nucleic acid sequence is standard in the art, but maintains that the confirmation of an encoded amino acid sequence is not sufficient to enable the claimed invention, because the specification does not provide sufficient guidance for how to use such a sequence.

Applicants disagree.

Claims 65-67 have been canceled and, therefore, the rejection of these claims is moot. The remaining claims are directed to an isolated RNA molecule encoding a protein or polypeptide including the amino acid sequence of SEQ ID NO:5 (claim 6), an isolated DNA molecule encoding a protein or polypeptide including the amino acid sequence of SEQ ID NO:5 (claim 35), an expression vector that includes the DNA molecule of claim 35 (claim 55 and its dependent claims), a host cell transformed with the DNA molecule of claim 35 (claims 59 and 60), and a transgenic plant or transgenic plant component including the DNA molecule of claim 35 (claim 61 and its dependent claims).

Applicants note that the test of enablement is “whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with the information known in the art without undue experimentation.” *Hybritech, Inc. v. Monoclonal Antibodies, Inc.* 802 F.2d. 1318 (Fed. Cir. 1985). Applicants submit that the present claims clearly meet this standard.

Claims 6 and 35 are directed to isolated RNA and DNA molecules, respectively, which encode a particular amino acid sequence (SEQ ID NO:5). As acknowledged by the Office, confirming that a given nucleic acid sequence encodes a particular amino acid sequence is standard in the art. Given that the amino acid sequence of SEQ ID NO:5 is disclosed in the specification, one skilled in the art can make and use the isolated nucleic acid molecules claimed in claims 6 and 35. The application teaches, for example, at page

10, line 22 to page 12, line 30, how to use nucleic acid molecules to produce vectors which contain such nucleic acid molecules. Moreover, the specification teaches, for example, at page 15, line 24 to page 17, line 6, how to use a vector or a nucleic acid sequence to transform a cell or plant component. The cell or plant component may then be used to regenerate a plant. Further, for example, at page 18, line 24, to page 19, line 2, the specification teaches how to use nucleic acid sequences to identify similar sequences. All of the uses referred to above involve techniques that were standard in the art at the time the application was filed. Applicants submit that these sections of the specification clearly enable one skilled in the art to make and use the inventions encompassed by claims 6 and 35, but also by claims 55-64.

Further, Applicants submit that the Office's concerns about the ability of the amino acid sequence to function as a proteinase or to confer viral resistance do not apply to the present claims. As summarized above, these claims are directed to isolated nucleic acid molecules and vectors, cells, and plants containing such nucleic acid molecules and do not require the sequence of SEQ ID NO:5 to function as a proteinase or to confer viral resistance. For all of these reasons, the enablement rejection of claims 6, 35, and 55-64 should be withdrawn.

CONCLUSION

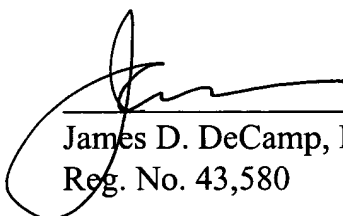
Applicants submit that the claims are in condition for allowance and this action hereby is respectfully requested.

Enclosed are a Petition to extend the period for replying to the Office Action for three months, to and including August 23, 2004, and a check in payment of the required extension fee.

If there are any additional charges or any credits, please apply them to Deposit Account No. 03-2095.

Respectfully submitted,

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